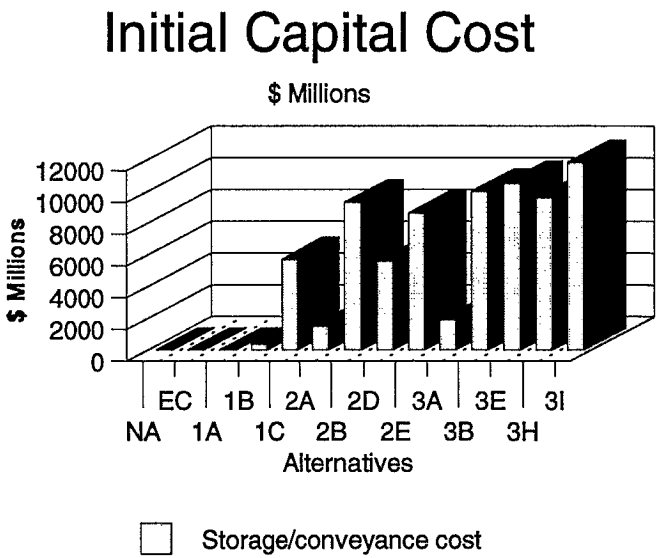
11.
TOTAL COST

Total Cost
Supporting Information

Total costs will vary among alternatives. Initial capital costs and reoccurring annual costs will be estimated from prefeasibility analyses. All costs will be annualized or capitalized for comparison; alternatives with the lowest cost will be given the highest rank. This analysis will be performed under the assumption that the financial principles remain the same for each alternative but that a preliminary indication of cost breakdown between the general public and user groups may be available before comparison of all distinguishing characteristics.

Definition

"Total Cost" will include the initial capital costs for the Program and reoccurring annual costs. Initial costs will include study, design, permitting, construction, mitigation, acquisition, and other first costs of the Program. Annual costs will include operation and maintenance, monitoring, reoccurring annual purchases, and other annual costs.



Summary

Costs for the ecosystem restoration program plan, water quality program, water use efficiency program, and levee system integrity program have not been estimated. However, these will be relatively constant between the alternatives. The costs for the storage and conveyance facilities will increase directly with the number and size of those facilities in the alternatives. In general, the alternatives with only conveyance improvements are among the least expensive. Much of the variable cost of the alternatives is in the surface storage facilities. However, the storage sizes in the alternatives are intended to define the outer range of potential impacts in the EIR/EIS. Further analysis of these sizes will likely lower the effective storage sizes and costs of the alternatives. **The above chart shows preliminary estimates of initial capital costs for storage and conveyance facilities only. Since lower costs are the most desirable, Table 11.1 provides a score of "5" to the lowest costs and a score of "0" to the highest costs.**

11. Total Cost

Initial Cost (present value and annualized costs for time sequence):
- Study, design & permitting
- Construction
- Mitigation
- Other

Annual Costs (present value and annualized costs for time sequence:)
- Operation and maintenance
- Monitoring
- Reoccurring annual purchases
- Other

To Decision Matrix

Table 11.1 Summary

Alternative	Initial Cost $Million	Annual Cost $ Million/Yr	Overall Score
Exist. Cond.	NA	NA	5
No-action	NA	NA	5
1A	0	0	5
1B	390	3	4
1C	5,700	45	3
2A	1,500	12	4
2B	9,300	75	1
2D	5,600	45	3
2E	8,600	69	1
3A	1,900	15	4
3B	10,000	81	1
3E	10,500	84	1
3H	9,600	77	1
3I	11,800	95	1

Assume $ 4,000 Million for common programs only to see change in rankings

Initial Cost $Million		Overall Score
NA		5
NA		5
0 +	4,000	4
390 +	4,000	4
5700 +	4,000	3
1500 +	4,000	4
9300 +	4,000	2
5600 +	4,000	2
8600 +	4,000	2
1900 +	4,000	4
10000 +	4,000	1
10500 +	4,000	1
9600 +	4,000	1
11800 +	4,000	1

Cost of the ecosystem, water quality, water use efficiency, and levee system integrity program not yet included.
Table includes $ for storage and conveyance facilities only.
Lower costs will be provided the highest ranking.
Values are on a scale from 0 to 5; with 0 representing the most expensive and 5 representing the least.

Supporting Information for Table 11.1

Estimating of costs for the alternatives is in progress. At this time, only preliminary estimates of storage and conveyance facility costs are available. Therefore, Table 11.1 does not currently include costs for any of the 4 common programs.

The estimates in Table 11.1 were derived from:

CVP-SWP Improvements
Cost were taken from, CALFED's "Facility Descriptions and Updated Cost Estimates for an **Improved Through Delta Conveyance Facility**", (Table 4), June 24, 1997. To account for mitigation, costs were increased by 15 percent.

South Delta Improvements
Cost were taken from, CALFED's "Facility Descriptions and Updated Cost Estimates for an **Improved Through Delta Conveyance Facility**", (Table 4), June 24, 1997. To account for mitigation, costs were increased by 15 percent.

North Delta Improvements
Costs were taken from, DWR's, "Draft Environmental Impact Report and Impact Statement **North Delta Program**", November 1990. Costs are from Table H-1, Alternative 5A and included only enlarging the North Fork of the Mokelumne River. The cost were increased by 15 percent for mitigation and 11 percent for escalation (increase in costs) from November 1990 to October 1996.

Alternative 2B - Intake, Pumping Plant, Glanville and Mc Cormack-Williamson Tracks
Cost were taken from, CALFED's "Facility Descriptions and Updated Cost Estimates for an **Improved Through Delta Conveyance Facility**", (Table 4), June 24, 1997. To account for mitigation, costs were increased by 15 percent.

3.0 MAF Upstream Storage Sacramento River
To forecast a general cost of 3.0 MAF of surface storage in the Sacramento Valley, the cost of two large storage complexes were averaged (Colusa and Thomas-Newville). The 3.3 MAF Colusa Reservoir complex is offstream with conveyance facilities of a new canal paralleling the Tehama-Colusa (T-C) Canal from Red Bluff diversion Dam to Funks Reservoir and a new connection

from the Sacramento River at Chico landing to the T-C Canal (conveyance options 2b & 4). The 3.08 MAF Thomes-Newville complex is offstream with a new canal adjacent to the T-C canal from RedBluff to Sour Grass Canal (conveyance option 2f). The cost of these facilities were derived from CALFED's, "Facility Descriptions and Updated Cost Estimates for: Sites/Colusa Reservoir, June 24, 1997; Thomes-Newville Reservoir Project, June 23,1997; Chico Landing Intertie, March 25, 1997; Tehama-Colusa Canal Enlargement, June 24,1997; and, Tehama-Colusa Canal Extension, June 25,1996.

500 TAF Upstream Storage San Joaquin River

Cooperstown, a proposed 609 TAF offstream reservoir, was used to estimate the general cost for 500 TAF of storage in the San Joaquin valley.

2.0 MAF Aqueduct Storage

Garzas, proposed 2.0 MAF offstream reservoir, was used to estimate the general cost for 2.0 MAF of storage on the aqueduct.

1.0 MAF Aqueduct Storage

The general cost of 1.0 MAF of aqueduct storage was derived by combining the cost of a 600 TAF offstream Sunflower reservoir and a 401 TAF offstream Ingram reservoir.

500 TAF Groundwater storage in the Sacramento Valley

The cost of 500 TAF active groundwater storage was estimated by summing the cost of: Butte Basin (pg B-5); and Stoney Creek Fan (pg B-12) from the CALFED report "CALFED Bay-Delta Program Storage and Conveyance Inventories", February 5, 1997. To account for mitigation, costs were increased by 15 percent.

500 TAF Groundwater storage in the San Joaquin Valley

The cost of 500 TAF active groundwater storage was estimated by summing the cost of: Southeastern San Joaquin County (pg B-16); and Kern County (pg B-20) from the CALFED report "CALFED Bay-Delta Program Storage and Conveyance Inventories", February 5, 1997. To account for mitigation, costs were increased by 15 percent.

200 TAF In-Delta Storage
Cost were taken from, CALFED's "Facility Descriptions and Updated Cost Estimates for the **In-Delta Storage Project**", (Table 3, June 24, 1997. To account for mitigation, costs were increased by 15 percent.

5,000 cfs Isolated Facility
Cost were taken from, CALFED's "Facility Descriptions and Updated Cost Estimates for an **Isolated Delta Conveyance Facility**", (Table 3), March 28,1997. To account for mitigation, costs were increased by 15 percent.

General Allowances (assume that all of these are included in the above figures)
Contingency Costs (15%)
Engineering, Legal, and Project Administration (35%)
Mitigation Costs (15%)
Operation and Maintenance (0.8%)

Cost estimates for the four common programs are not available at this time.

Information in Table 11.1 and this supporting information will be updated as more detailed costs become available.